

REMARKS

In the Office communication dated April 1, 2010, the Office has taken the position the claims are unsearchable because the fourth bond one of the carbonyl groups in each of the two subgenera of claims 1 and 2 is empty. The Office additionally requested that claim 1, which recites the term “hydrophobic group,” be amended to define this term, because the Office maintains that this term encompasses an extremely broad class of molecules and represents an undue search burden. Finally, the Office requested that applicants identify the species that were tested and found to treat arrhythmias. Each of these matters is addressed below.

Chemical structures

The chemical structures in claims 1 and 2 have been amended to recite hydrogen (“-H”) groups where appropriate. Support for these changes is found throughout the specification, for example, in formula I on page 5. Applicants submit that these changes address the issues raised by the Office.

“Hydrophobic group”

Claim 1 has been amended to replace the term “hydrophobic group” with the phrase “an optionally substituted aromatic carbon ring.” Support for this change is found, for example, at page 51, line 18. Applicants submit that this change addresses the issue raised by the Office on this point.

Compound tested for arrhythmic activity

Compound 1 (H-Gly-Lys(4-nitrobenzoyl)-OH), Compound 3 (H-Gly-Lys(4-cynaobynzoyl)-OH), Compound 4 (H-Gly-Lys(4-methoxybenzoyl)-OH), Compound 7 (H-Lys(4-nitrobenzoyl)-Gly-OH), Compound 21 (H-D-Lys(4-methoxybenzoyl)-Gly-OH), Compound 22 (H-D-Lys(4-nitrobenzoyl)-Gly-OH), and Compound 54 (H-D-Lys(4-t-

butylbenzoyl)-Gly-OH) were identified as having antiarrhythmic activity in calcium-induced model of arrhythmia, as described on pages 49 and 50 of the specification. See, in particular, Table 5 on page 50. Each of these compounds falls within the chemical structures recited in claims 1 and 2.

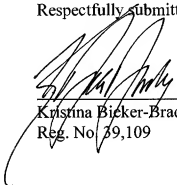
CONCLUSION

Applicants submit that the claims are in condition for allowance, and such action is respectfully requested. No charges are believed to be due at this time. If, however, there are any charges or any credits, please apply them to Deposit Account No. 03-2095.

Respectfully submitted,

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